

PATENT COOPERATION TREATY

WILMER CUTLER PICKERING
HALE and DORR LLP DOCKETING

RE: 42697.149WO1
Action Date: 12.6.04
Action to be Taken: pay fees.
Docketed By: BMB On: 10.27.04
PCT

From the INTERNATIONAL SEARCHING AUTHORITY

To:
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WILMER CUTLER PICKERING HALE AND DORR LLP
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INVITATION TO PAY ADDITIONAL FEES

(PCT Article 17(3)(a) and Rule 40.1)

COPY

Date of mailing (day/month/year)	22/10/2004
Applicant's or agent's file reference 42697.149WO1	PAYMENT DUE within 45 XXXX days from the above date of mailing
International application No. PCT/US 03/36568	International filing date (day/month/year) 14/11/2003
Applicant PRESIDENT AND FELLOWS OF HARVARD COLLEGE	

1. This International Searching Authority

- (i) considers that there are 2 (number of) inventions claimed in the international application covered by the claims indicated ~~XXXX~~ on the extra sheet:

and it considers that the international application does not comply with the requirements of unity of invention (Rules, 13.1, 13.2 and 13.3) for the reasons indicated ~~XXXX~~ on the extra sheet:

- (ii) ☒ has carried out a partial international search (see Annex) ☐ will establish the international search report on those parts of the international application which relate to the invention first mentioned in claims Nos.:

1-13

- (iii) will establish the international search report on the other parts of the international application only if, and to the extent to which, additional fees are paid

2. The applicant is hereby invited, within the time limit indicated above, to pay the amount indicated below:

EUR 945,00 x 1 = EUR 945,00
Fee per additional invention number of additional inventions total amount of additional fees

Or, _____ x _____ = _____

The applicant is informed that, according to Rule 40.2(c), the payment of any additional fee may be made under protest, i.e., a reasoned statement to the effect that the international application complies with the requirement of unity of invention or that the amount of the required additional fee is excessive.

3. ☐ Claim(s) Nos. _____ have been found to be unsearchable under Article 17(2)(b) because of defects under Article 17(2)(a) and therefore have not been included with any invention.

Name and mailing address of the International Searching Authority



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Véronique Baillou

EINSCHREIBEN

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-13

Use of volatile metal amidinates in a process in which a heated substrate is exposed alternately to vapors of the amidinate and to vapors of a further reactant, for example for deposition of a metal, a nitride or an oxide layer.

2. claims: 14-19

Volatile metal amidinates comprising only one type of amidine ligand as its ligands.

According to Rule 13(1) PCT an international application shall relate to one invention only or to a group of inventions so linked as to form a single general inventive concept ("unity of invention").

According to Rule 13(2) PCT the requirement of unity is fulfilled for a group of inventions only when there is a technical relationship among those inventions involving one or more of the same or corresponding special technical features. The expression special technical features means those technical features that define a contribution which each of the claimed inventions, considered as a whole, makes over the prior art.

Corresponding special technical features will result in the same or similar technical effects if added to a combination of technical features which is already known in the art.

The sole common technical feature between both inventions is a "volatile metal amidinate compound". However, metal amidinates being volatile are known in the art. For example, GB 2 295 393 discloses a CVD process using an Al, Ga or In precursor containing an amidine (abstract, Fig. 1, claims 1 - 4). Therefore, the above mentioned common technical feature cannot be considered as a common special technical feature in the sense defined by Rule 13(2) PCT, i.e. in making a contribution to the prior art.

To the common technical feature as identified above, i.e. a volatile metal amidinate, invention 1 adds to carry out a process in which a heated substrate is exposed alternately to vapors of the amidinate and to vapors of a further reactant, which is considered as a special type of a CVD deposition process, for example an atomic layer deposition process. Invention 2 further specifies volatile metal amidinates by adding certain compositional features.

These added features are clearly not the same technical features.

The technical effect of invention 1 is to provide a process for the deposition of thin films having the properties as mentioned on pages 4 and 5 of the description of the present application.

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Invention 2 provides volatile metal amidinates, having a different composition than in GB 2 295 393, which may, for example, be useful as precursors in CVD processes in general, but which also may have properties useful in quite other areas, like, for example, polymerization.

Hence, there is no common inventive concept between these two inventions.